# AN INVENTORY OF ALBERTA AGRICULTURE'S SOIL AND WATER PROGRAMS

AUGUST, 1989

Alberta
AGRICULTURE

90-03513/

# PREFACE

This inventory of the Department's soil and water related programs was prepared by Alberta Agriculture's Soil and Water Review Committee. The objective of the Review Committee is to conduct a comprehensive review and evaluation of existing soil and water programs within Alberta Agriculture and to identify strengths, weaknesses, and opportunities for change and modification.

The scope of the review includes all non-irrigation soil and water programs within Alberta Agriculture and the Agricultural Development Corporation, and only involves programs which apply to private lands.

The inventory and review includes:

i) education and awareness programs,
ii) demonstration programs,
iii) professional and technical service programs,
iv) financial incentive programs, and
v) federal/provincial iniatives.

It is expected that this publication will be useful to those who are working in any of the above areas, or soil and water related programs.

Copies of the Inventory of Alberta Agriculture's Soil and Water Programs are available from the Planning Secretariat (427-2417, RITE 147-2417).

Members of Soil and Water Review Committee:
Gail Matheson (Chairman),
Ralph F. Berkan,
Robert S. Forrest,
Adolph W. Goettel, and
R. David Neilson.

Beverley Ross (Agrologist)
Evelyn Shapka (Information Officer)

TABLE OF CONTENTS

I. SOIL PROGRAMS

A. Conservation

Dryland Salinity Investigation Service (DSIS) .....I-1
Soil Conservation Act .....I-2
Soil Conservation Area Program (SCAP) .....I-3
Soil Conservation Research and Technology Transfer .....I-4

B. Fertility

Alberta Farm Fertilizer Price Protection Plan .....I-5
Soil Fertility Research and Technology Transfer .....I-6

C. Improvement

Agricultural Lime Freight Assistance (ALFA) Program .....I-7
Soil Improvement Research and Technology Transfer .....I-8

II. WATER PROGRAMS

A. Surface Water

Farmland Development and Reclamation Program (FDRP) .....II-1
On-Farm Water Management Research and Technology Transfer ...II-2

B. Water Supplies

Alberta Farm Water Grant Program .....II-3
Dugout Pumping Program .....II-4
Dugout Site Testing Service .....II-5
Water Well Restoration or Replacement Program .....II-6

## III. WATER/SOIL INTERRELATED PROGRAMS

### A. Intergovernmental

Agricultural Land Flood Control Program .....III-1

Canada/Alberta Agreement on Soil, Water and Cropping Research and Technology Transfer (CARTT) .....III-2

Canada/Alberta Soil Conservation Initiative (CASCI).....III-3

Disaster Assistance .....III-4

Identification and Mapping: Erosion and Salinity Inventory....III-5

Other Soil and Water Awareness and Technology Transfer Programs Delivered through Agricultural Service Boards...III-6

Prairie Farm Rehabilitation Administration (PFRA) Additional Funding for ASB Soil Conservation Programs....III-7

Roadside Backsloping and Seeding .....III-8

### B. Research and Planning

Alberta Agricultural Research Institute (AARI) .....III-9

Farming for the Future (FFTF) .....III-10

Machinery Research and Development .....III-11

Resource Analysis and Planning Services .....III-12

### C. Technology Transfer and Services

Climate and Weather Service .....III-13

Laboratory Services .....III-14

Producer Associations (Alberta Agriculture, Soil and Water Projects) .....III-15

Provincial Shelterbelt Program .....III-21

Range and Soil Improvement Program .....III-22

## IV. APPENDIX

Programs Reviewed in Inventory .....IV-1

Acts and Regulations Cited in Inventory .....IV-2

Sources Cited in Inventory .....IV-3

## SOIL AND WATER PROGRAM INVENTORY

### DEFINITION OF INVENTORY TERMS

The following explain the headings used in the Inventory.

PROGRAM NAME: Official name of the program or a blanket title chosen by the Committee to represent a number of interrelated programs. An alphabetical list of all program names in the Inventory is in the Appendix on page IV-1.

REASON THE PROGRAM WAS SET UP:

Gives background events that led to a program being established, or describes the evolution of a program. Where pertinent, a chronological description is provided.

OBJECTIVE/PURPOSE OF THE PROGRAM:

Quoted directly from or summarized from government documentation. Quotation marks indicate wording is taken directly from the source. The document source is shown in brackets. Sources cited in the Inventory are listed alphabetically in the Appendix on pages IV-3 and IV-4.

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

An indication of how much of the program deals with soil and/or water.

PRIMARY LEGISLATION:

Lists the acts or regulations which provide the authority for implementation of the program. Complete citations of the acts and regulations in the Inventory are given in the Appendix on page IV-2.

PROGRAM ADMINISTRATION:

If administered by Alberta Agriculture, the branch, division, or sector is indicated. If administered by another agency, the name of that agency is given.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Lists any others involved with the program's activities.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan, Robert S. Forrest, Adolph W. Goettel, Gail Matheson, or R. David Neilson.

RESOURCE PERSON (PEOPLE):

Name: Section head or person who administers the program.

## SOIL AND WATER PROGRAM INVENTORY

### ABBREVIATIONS USED IN INVENTORY

| | |
|---|---|
| AARI | Alberta Agricultural Research Institute |
| ACTS | Alberta Conservation Tillage Society |
| ADC | Alberta Agricultural Development Corporation |
| AFMRC | Alberta Farm Machinery Research Centre |
| ALFA | Agricultural Lime Freight Assistance Program |
| APSS | Alberta Public Safety Services |
| ASB(s) | Agricultural Service Board(s) |
| BRARA | Battle River Applied Research Association |
| BRFA | Battle River Forage Association |
| CARA | Chinook Applied Research Association |
| CARTT | Canada/Alberta Agreement on Soil, Water and Cropping Research and Technology Transfer |
| CASCI | Canada/Alberta Soil Conservation Inititative |
| DSCA | Dryland Salinity Control Association |
| DSIS | Dryland Salinity Investigation Service |
| ERCB | Energy Resources Conservation Board |
| FDRP | Farmland Development and Reclamation Program |
| FFCA | Foothills Forage Co-operative Association |
| FFTF | Farming for the Future |
| PAMI | Prairie Agricultural Machinery Institute |
| PFRA | Prairie Farm Rehabilitation Administration |
| SARDA | Smoky Applied Research and Demonstration Association |
| SCAP | Soil Conservation Area Program |

# I. SOIL PROGRAMS

## A. CONSERVATION

# SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Dryland Salinity Investigation Service (DSIS)

REASON THE PROGRAM WAS SET UP:

During the 1970s, salinity investigations were conducted by Alberta Agriculture on a limited basis for research and demonstration purposes. In the early 1980s, Alberta Agriculture, PFRA and Alberta Environment joined forces to tackle the increasing problems related to the spread of soil salinity. The three agencies developed and implemented an investigation service for producers in Southern Alberta in cooperation with the Dryland Salinity Control Association (DSCA), to which application fees were paid. By 1983-84, the program had created a great deal of enthusiasm among farmers. A need for change in the administrative aspects of the service was identified in addition to the need to expand the service province-wide. Through the efforts of the DSCA, Alberta Environment, Alberta Agriculture and the PFRA, a proposal for change was developed and approved by the Minister of Agriculture for implementation April 1, 1985. At the same time, Alberta Environment withdrew as a participating partner, leaving Alberta Agriculture and the PFRA as the agencies responsible for delivery of the service. A coordination mechanism was established and the role of the DSCA was clarified and changed.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To provide soil and groundwater investigation services to identify the location and size of major recharge areas which contribute to saline seepage. To provide salinity control advice and promotion.
(DSIS Proposal For Change 1985)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil and water.

PRIMARY LEGISLATION:

Department of Agriculture Act, Soil Conservation Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture), Agricultural Service Boards, Dryland Salinity Control Association, PFRA (Agriculture Canada).

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: Hank Vander Pluym

Phone: 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Soil Conservation Act

REASON THE PROGRAM WAS SET UP:

Producers and local authorities requested that legislation be passed to provide a framework that would allow for the control of soil loss and deterioration. The Act was introduced in 1962 with recent amendments and a new Act was proclaimed on September 26, 1988.

As a result of increasing erosion problems and increased public awareness and pressure, Soil Conservation Act enforcement became a priority for ASBs, particularly in Southern Alberta, in the early 1980s. Funding of enforcement was approved by the Minister of Agriculture in late 1984 for inclusion in expanded ASB Program Guidelines for 1985.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"To provide a framework for encouraging sound soil conservation practices in the province, to preserve Alberta's agricultural land base and to ensure that the farming sector can sustain their current levels of productivity." (Ministerial Press Release 1988)

"Every landholder shall, in respect of his land, take appropriate measures: (a) to prevent soil loss or deterioration from taking place, or (b) if soil loss or deterioration is taking place to stop the loss or deterioration from continuing." (Soil Conservation Act 1988)

"Provide leadership and technical and administrative support to local municipalities for enforcement of the Soil Conservation Act and the associated bylaws." (Irrigation and Resource Management Division Manual 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil.

PRIMARY LEGISLATION:

Soil Conservation Act, Agricultural Service Board Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Agricultural and Community Services Branch, and Field Services Sector (Alberta Agriculture), Alberta Environment.

STEERING COMMITTEE CONTACT:

Name: R. David Neilson
Phone: 422-4385

RESOURCE PERSON:

Name: John C. Hermans
Phone: 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Soil Conservation Area Program (SCAP)

REASON THE PROGRAM WAS SET UP:

In response to requests from local municipalities, the Soil Conservation Area Program was established in 1972 to provide financial incentives and technical assistance for good soil conservation demonstrations. Erosion control was originally the main concern of the program, with salinity control being added to expanded ASB Program Guidelines as approved by the Minister of Agriculture for implementation in 1984.

OBJECTIVE/PURPOSE OF THE PROGRAM:

Using economic incentives to encourage practices and projects which will prevent and control soil erosion and soil salinity, relative to both provincial and municipal agricultural priorities.
(Irrigation and Resource Management Division Manual 1988)

"To encourage soil conservation projects that prevent or control soil erosion and soil salinity.
(a) Soil Erosion: To prevent or control soil erosion by wind or water and reclaim or return affected lands to production.
(b) Soil Salinity: To decrease salinity levels, increase production on affected lands, and minimize further spread of soil salinity."
(ASB Program Guidelines 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil and water.

PRIMARY LEGISLATION:

Soil Conservation Act, Department of Agriculture Act, Agricultural Service Board Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch, Agricultural and Community Services Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture), Agricultural Service Boards, Alberta Environment, PFRA (Agriculture Canada).

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: Hank Vander Pluym

Phone: 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Soil Conservation Research and Technology Transfer

REASON THE PROGRAM WAS SET UP:

Soil conservation was identified as a priority in the 1983 Departmental reorganization. As part of this new thrust and reorganization, the Conservation and Development Branch was created and given responsibility for soil conservation. The program was developed to provide the technology transfer and applied research required to support landowners and local authorities in preventing soil loss and deterioration.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To research, investigate, develop and promote methods and technology that will conserve and maintain the productivity of agricultural lands. This will include management practices that will prevent, reclaim and return to production, lands affected by erosion by wind and water, decline of soil organic matter, loss of production due to salinity, and compaction. (Irrigation and Resource Management Division Manual 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil and water.

PRIMARY LEGISLATION:

Agricultural Service Board Act, Soil Conservation Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services and Production Sectors (Alberta Agriculture), Agricultural Service Boards, producer groups, PFRA and Research Branch (Agriculture Canada).

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: John C. Hermans

Phone: 422-4385

# I. SOIL PROGRAMS

## B. FERTILITY

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Alberta Farm Fertilizer Price Protection Plan

REASON THE PROGRAM WAS SET UP:

As a result of continuing depressed crop prices since the early 1980s, the government was requested to assist farmers with the cost of inputs: fuel, fertilizer, etc. Fertilizer can make up to 30 per cent of the cash input costs of crop production.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"To assist Alberta farmers to reduce crop production costs." To provide a grant of $50 per tonne of nitrogen and $25 per tonne of phosphate to Alberta farmers. (Program Conditions Brochure 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Indirectly related to soil as fertilizer increases crop yields, therefore increasing soil organic matter and reducing soil erosion.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Speciality Crops Stabilization, Central Program Support.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector and Soils Branch (Alberta Agriculture).

STEERING COMMITTEE CONTACT:

Name: Adolph W. Goettel

Phone: 427-2530

RESOURCE PERSON:

Name: Lloyd Andruchow

Phone: 422-5672

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Soil Fertility Research and Technology Transfer

REASON THE PROGRAM WAS SET UP:

Increased crop production costs dictate a need to reduce inputs or increase their efficiency. Production technology requires development in the many different soil-crop regions of Alberta.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To develop recommendations and provide technical information for fertilizer use and related soil management practices appropriate for all crops and cropping systems throughout the province.
(Summary of Soils Branch Program Outlines 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil as improved soil management reduces soil loss through erosion and organic matter decline.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Soils Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Farming for the Future (Alberta Agriculture) - provides some funding. Field Services, and Planning and Development Sectors (Alberta Agriculture).

STEERING COMMITTEE CONTACT:

Name: Adolph W. Goettel

Phone: 427-2530

RESOURCE PERSON:

Name: Doug Penney

Phone: 427-2530

# I. SOIL PROGRAMS

## C. IMPROVEMENT

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Agricultural Lime Freight Assistance (ALFA) Program

REASON THE PROGRAM WAS SET UP:

To develop a supply of liming materials near areas of acid soils. There are 1.5 million acres of acid soils in Alberta which limit crop production.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"The Agricultural Lime Freight Assistance Program provides assistance in the form of a grant for the transportation of liming materials for application to land to reduce soil acidity."
(ALFA Brochure 1988)

"To reduce the cost of liming materials to Alberta farmers with acid soils and to encourage the development of an agricultural lime supply and service industry."
(Soils Branch Program Outline 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil improvement as liming increases crop production presently limited to acid tolerant crops.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Soils Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture).

STEERING COMMITTEE CONTACT:

Name: Adolph W. Goettel

Phone: 427-2530

RESOURCE PERSON:

Name: Adolph W. Goettel

Phone: 427-2530

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Soil Improvement Research and Technology Transfer

REASON THE PROGRAM WAS SET UP:

There are millions of acres of arable land in Alberta affected by natural limitations for efficient crop production. Limitations include acidity, hardpan (solonetzic, luvisolic), organic soils and low organic matter. Producers are continually requesting information on ways to manage these soil problems more effectively.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"To provide technical information to producers and department staff to promote effective management of solonetzic, luvisolic, organic and acid soils."
(Soils Program Outlines 1988)

To develop management practices to effectively crop soils with natural limitations. To determine crop response to soil improvement technology.
(Summary of Soils Branch Program Outlines 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Soils Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector, and Conservation and Development Branch (Alberta Agriculture).

STEERING COMMITTEE CONTACT:

Name: Adolph W. Goettel

Phone: 427-2530

RESOURCE PERSON:

Name: Jerome Lickacz

Phone: 427-2530

# II. WATER PROGRAMS

## A. SURFACE WATER

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Farmland Development and Reclamation Program (FDRP)

REASON THE PROGRAM WAS SET UP:

At the request of local municipalities, private landowners and MLAs, FDRP was developed to provide financial incentives and technical assistance for projects that demonstrated good on-farm water management techniques. This program complemented SCAP and included demonstration projects not addressed by SCAP or Position Paper Number 5 by Alberta Environment. FDRP was introduced to ASBs in 1985. Roles of Alberta Agriculture and Alberta Environment were clarified by an Agreement signed in November 1985. Further changes have been approved for implementation in April 1989.

OBJECTIVE/PURPOSE OF THE PROGRAM:

Using economic incentives, to encourage practices and projects which will improve on-farm water management relative to both provincial and municipal agricultural priorities.
(Irrigation and Resource Management Division Manual 1988)

"Suggested Demonstration Projects:
(1) Slough Consolidation - To consolidate water bodies on-farm into storage ponds or reservoirs to improve field operations, increase productive land area and/or provide water for livestock, domestic, or other purposes.
(2) Controlled Drainage - Through the use of under sized control structures (e.g. corrugated plastic or steel pipe) that will retain spring runoff to improve soil moisture through greater infiltration."
(ASB Program Guidelines 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil and water.

PRIMARY LEGISLATION:

Department of Agriculture Act, Agricultural Service Board Act, Soil Conservation Act, Water Resources Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch, Agricultural and Community Services Branch (Alberta Agriculture).

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture); Agricultural Service Boards; Alberta Environment; Alberta Forestry, Lands and Wildlife; PFRA (Agriculture Canada); Ducks Unlimited.

STEERING COMMITTEE CONTACT:
Name: R. David Neilson
Phone: 422-4385

RESOURCE PERSON:
Name: R. David Neilson
Phone: 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: On-Farm Water Management Research and Technology Transfer

REASON THE PROGRAM WAS SET UP:

On-farm water management was identified as a priority in the Departmental reorganization of 1983 when the Conservation and Development Branch was established. This program was developed in response to producer needs for information and technical assistance related to the conservation and management of on-farm water. The program also provided departmental and inter-agency coordination of water-related programs and technology.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To research, investigate, develop and promote on-farm water management technology that will optimize agricultural production and conserve and manage the soil and water resources for sustained agricultural production. On-farm utilization will be encouraged for domestic and livestock use and for crop production.
(Irrigation and Resource Management Division Manual 1988).

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil and water.

PRIMARY LEGISLATION:

Department of Agriculture Act, Water Resources Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services and Production Sectors (Alberta Agriculture); Agricultural Service Boards; producer groups; Alberta Environment; Alberta Forestry, Lands and Wildlife; Alberta Municipal Affairs; Alberta Water Resources Commission; PFRA (Agriculture Canada); Ducks Unlimited.

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: R. David Neilson

Phone: 422-4385

# II. WATER PROGRAMS

## B. WATER SUPPLIES

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Alberta Farm Water Grant Program

REASON THE PROGRAM WAS SET UP:

To provide financial and technical assistance to farmers and ranchers in the construction of permanent water transmission systems.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"The Alberta Farm Water Grant Program has been established to provide financial assistance to farmers and ranchers in the construction of permanent water transmission systems for household and livestock use. ...The province will cost-share with the farmers and ranchers on a 75/25 basis. The funding will be limited to a maximum of $20,000 in project cost per serviced farm unit ($15,000 government sources + $5,000 owner). Funding from other government sources, including PFRA will be applied towards the provincial contribution.
...The program duration is to March 31, 1991."
(Alberta Farm Water Grant Program Brochure 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to farm water supply.

PRIMARY LEGISLATION:

Rural Utilities Act.

PROGRAM ADMINISTRATION:

Alberta Transportation and Utilities.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture), PFRA (Agriculture Canada).

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Grant Bridgeman

Phone: 427-3021

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Dugout Pumping Program

REASON THE PROGRAM WAS SET UP:

To assist bonafide farmers and ranchers by providing pumping equipment (pumps and pipe) at reasonable rental rates for the purpose of filling on-farm water reservoirs.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"This program provides equipment on a rental basis for the filling of farm dugouts which due to the unusual weather conditions were not filled by runoff and precipitation."
(Assistance Available for Alberta Farmers, Adgex 871, 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to farm water supply.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Engineering Services Branch, Field Services Sector.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

None.

STEERING COMMITTEE CONTACT:

Name: Robert S. Forrest

Phone: 427-2181

RESOURCE PERSON:

Name: Brian West

Phone: 340-5322

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Dugout Site Testing Service

REASON THE PROGRAM WAS SET UP:

This program was developed to ensure that dugouts and on-farm reservoirs are located on suitable soils/sites. The service was provided by Alberta Environment until 1985-86 when they indicated withdrawal of their services and requested that PFRA or Alberta Agriculture takeover the program. Continuation of this technical assistance program was requested by farmers (1986 Region 6 ASB Conference) and responsibility was transferred from Alberta Environment to Alberta Agriculture. The service was supplied by Alberta Agriculture and Alberta Environment in 1986/87 until transfer to Alberta Agriculture was completed on April 1, 1987.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To provide an on-farm dugout site testing service.
(Alberta Environment Memorandum 1985)(Evaluation Report 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to farm water supplies and water management.

PRIMARY LEGISLATION:

Department of Agriculture Act, Water Resources Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture), Alberta Environment, PFRA (Agriculture Canada).

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: R. David Neilson

Phone: 422-4385

SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Water Well Restoration or Replacement Program

REASON THE PROGRAM WAS SET UP:

As a result of seismic exploration or the development of oil and gas wells in Alberta there were situations where a water well either ceased producing or had its capacity significantly reduced. Landowners who experienced such problems were often unable to reach a satisfactory settlement with the company(s) that caused the problem.

To provide assistance to landowners experiencing these problems, the original Water Well Recovery Program was instituted in 1978 by Alberta Agriculture. This program was phased out March 31, 1987.

As a result of discussions with the oil industry and the Energy Resources Conservation Board (ERCB), by the Farmers' Advocate, a replacement program was instituted April 1, 1987. The major change was the funding source shift from Alberta Agriculture to industry and the ERCB.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"Designed to make partial or full payment only on those direct costs that have been incurred with the restoration or replacement of a water well" or other water source.
(Program Outline 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to farm water supplies.

PRIMARY LEGISLATION:

This program does not operate under any specific legislation.

PROGRAM ADMINISTRATION:

Farmers' Advocate Office.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED

Energy Resources Conservation Board (ERCB) as a financial contributor, as well as banker and accountant.
Agriculture Development Committees; Alberta Environment; Alberta Forestry, Lands and Wildlife.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Cliff Downey

Phone: 427-2433

# III. WATER / SOIL INTERRELATED PROGRAMS

## A. INTERGOVERNMENTAL

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Agricultural Land Flood Control Program

REASON THE PROGRAM WAS SET UP:

Beaver activity has caused flooding and damage to agricultural land.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"To control flooding of agricultural land due to beaver activity, silting of drainage channels, growth of weeds or trees choking drains, soil drifting or erosion blocking watercourses."
(ASB Program Guidelines 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to water management and soil conservation.

PRIMARY LEGISLATION:

Wildlife Act - General Wildlife (Ministerial) Regulation AR 95/87 Amended AR 258/88, Agricultural Service Board Act.

PROGRAM ADMINISTRATION:

Agricultural and Community Services Branch, and Field Services Sector (Alberta Agriculture), Agricultural Service Boards.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Alberta Forestry, Lands and Wildlife.

STEERING COMMITTEE CONTACT:

Name: Adolph W. Goettel

Phone: 427-2530

RESOURCE PERSON:

Name: Ferrin Leavitt

Phone: 427-2171

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Canada/Alberta Agreement on Soil, Water and Cropping Research and Technology Transfer (CARTT)

REASON THE PROGRAM WAS SET UP:

The program was set up in response to requests from farm groups, Agricultural Service Boards, and committees residing in Northeastern (NE) Alberta for crop and soil research and demonstrations. A proposal comprising two components - one for agronomic research in NE Alberta and the other for province-wide soil conservation technology transfer - was developed and approved in 1987. The Agreement covers from April 1, 1987 to March 31, 1993 and has province-wide coverage.

OBJECTIVE/PURPOSE OF THE PROGRAM:

- To develop and transfer technology on soil and crop management systems for NE Alberta.
- To develop and transfer technology on soil and water conservation and management in NE Alberta and in other selected problem soil areas of Alberta.
- To develop and transfer appropriate conservation tillage and cropping technology which will minimize soil degradation and sustain economic crop production.

(Canada/Alberta Agreement 1987)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is directly related to soil and water.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Plant Industry Division, and Irrigation and Resource Management Division (Alberta Agriculture), Joint Federal/Provincial Management Committee, Technical Committees.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector, Planning and Development Sector, and Production Sector (Alberta Agriculture); PFRA, Agricultural Development Branch and Research Branch (Agriculture Canada).

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: Jack Hazelwood

Phone: 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Canada/Alberta Soil Conservation Initiative (CASCI)

REASON THE PROGRAM WAS SET UP:

Soil Conservation has been a priority of provincial and national concern since the early 1980's. Soil and water conservation and development was identified as one of five key elements in the National Agriculture Strategy signed in November 1986 by all provincial and the federal Ministers of Agriculture. In December 1987, the federal government announced a National Soil Conservation Program with a federal contribution of $75 million across Canada subject to new matching provincial funds and signing of bilateral accords within the terms of reference of the National Agriculture Strategy. Negotiations have been underway between Alberta and Canada since 1987 to develop a joint federal/provincial agreement and programs. Signing and implementation of the agreement took place on July 24, 1989.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To facilitate implementation of a comprehensive agricultural soil and water conservation and development program in Alberta as envisioned in the National Agriculture Strategy in accordance with strategies and priorities of Alberta and the National Soil Conservation Program. (Accord on Soil and Water Conservation and Development 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Program is directly related to soil and water, soil conservation in particular.

PRIMARY LEGISLATION:

Department of Agriculture Act

PROGRAM ADMINISTRATION:

Conservation and Development Branch (Alberta Agriculture) and PFRA (Agriculture Canada).

OTHER BRANCHES/ DIVISIONS/ DEPARTMENTS/ AGENCIES INVOLVED:

Field Services, Production, and Planning and Development Sectors (Alberta Agriculture); Agricultural Service Boards; Producer Groups; Alberta Environment; Alberta Forestry, Lands and Wildlife; Alberta Municipal Affairs; Alberta Treasury; Western Diversification Office; Agriculture Development and Research Branches (Agriculture Canada); Federal and Intergovernmental Affairs.

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: Jack Hazelwood

Phone: 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Disaster Assistance

REASON THE PROGRAM WAS SET UP:

Prior to 1986, Alberta Agriculture provided assistance to Alberta Public Safety Services (APSS) through technical advice and membership on advisory committees. In 1986, as a result of the July 1986 major flooding of the Pembina River, Alberta Agriculture was formally asked to develop program guidelines and provide technical advice and recommendations on several hundred disaster claims. An Agreement was formalized with Alberta Public Safety Services for Alberta Agriculture to make recommendations regarding silting and erosion damage to farmland following disasters.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"If assistance is to be provided for erosion losses, claims requesting assistance are referred to the Conservation and Development Branch for review and recommended levels of assistance. Assessment and repair of field erosion damage is carried out under the guidelines established for the Soil Conservation Area Program (SCAP)."
(Alberta Agriculture Guidelines to Disaster Assistance Programs 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

A significant proportion of the program is directly related to soil reclamation.

PRIMARY LEGISLATION:

Public Safety Services Act, Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Agricultural and Community Services Branch, and Conservation and Development Branch (Alberta Agriculture), Alberta Public Safety Services.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture), Alberta Public Safety Services, Alberta Environment, municipalities, Emergency Preparedness Canada.

STEERING COMMITTEE CONTACTS:

Name: R. David Neilson 422-4385
Robert S. Forrest 427-2181

RESOURCE PEOPLE:

Name: Hank Vander Pluym 422-4385
Ferrin Leavitt 427-2171

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Identification and Mapping:
Erosion and Salinity Inventory

REASON THE PROGRAM WAS SET UP:

Soil and water conservation became an area of priority in 1982-83 in Alberta. The identification and mapping program was developed in response to requests from Agricultural Service Boards (ASBs) to assist them in establishing soil and water conservation priorities. In late 1984, the ASB guidelines for funding by Alberta Agriculture, were expanded and approved by the Minister of Agriculture to include this new program effort and became part of the ASB Program Guidelines in 1985.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To identify and map erosion and salinity problems. To develop a comprehensive inventory that would include location, extent, severity and trends of soil degradation.
(ASB Program Guidelines 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil and water.

PRIMARY LEGISLATION:

Department of Agriculture Act, Agricultural Service Board Act, Soil Conservation Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch, Agricultural and Community Services Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture), Agricultural Service Boards, Alberta Research Council, PFRA (Agriculture Canada).

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: Hank Vander Pluym

Phone: 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Other Soil and Water Awareness and Technology Transfer Programs Delivered through Agricultural Service Boards

REASON THE PROGRAM WAS SET UP:

Administration of provincial acts related to agriculture (i.e., weed control, pest control, soil conservation, agricultural chemicals, etc.) on behalf of and in cooperation with the province was established in 1945 under what is now called the Agricultural Service Board Act. Dissemination of new technical information to the farmer is usually by demonstration or applied research.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"To assist boards financially in carrying out their responsibilities under provincial acts and in carrying out projects or programs that will protect or improve our agriculture production capability, Alberta Agriculture is prepared to provide grants as defined in these guidelines."
(ASB Program Guidelines 1989)

"For assistance in soil and water conservation,
... to implement any other agricultural policies considered necessary."
(Agricultural Service Board Act RSA 1980; Amended to August 9, 1983)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

All programs within this group are related to water and soil conservation.

PRIMARY LEGISLATION:

Agricultural Service Board Act, Department of Agriculture Act.

PROGRAM ADMINISTRATION:

All sectors of Alberta Agriculture. Funds for all programs are administered by Agricultural and Community Services Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Alberta Environment; Alberta Forestry, Lands and Wildlife; PFRA (Agriculture Canada).

STEERING COMMITTEE CONTACT:

Name: Robert S. Forrest 427-2181
R. David Neilson 422-4385

RESOURCE PERSON:

Name: Ferrin Leavitt 427-2171
John C. Hermans 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Prairie Farm Rehabilitation Administration (PFRA) Additional Funding for ASB Soil Conservation Programs*

REASON THE PROGRAM WAS SET UP:

Soil and water conservation and development were identified as priorities with Departmental reorganization in 1983. As part of this, the Conservation and Development Branch became responsible for the ASB soil and water conservation and development programs. From 1980 to 1985, Alberta Agriculture spent approximately $300,000 annually on soil conservation projects carried out by Agricultural Service Boards (ASBs). With increased activity, interest and commitment by ASBs during this period the available funds were inadequate. Desiring a more active role in soil conservation in Alberta, PFRA approached Alberta Agriculture to participate in a cooperative funding effort. In October 1985, a formal Agreement was signed between Alberta Agriculture and Agriculture Canada to allocate an additional $150,000 annually to ASB soil conservation programs.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To increase the ability of Agricultural Service Boards to fund soil conservation programs and projects through a cooperative cost-sharing program between Alberta Agriculture and Agriculture Canada (PFRA). (Proposal for Federal/Provincial Funding 1985)(Letter of Agreement 1985)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil conservation.

PRIMARY LEGISLATION:

Agricultural Service Board Act, Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch, and Agricultural and Community Services Branch (Alberta Agriculture), PFRA (Agriculture Canada).

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture), Agricultural Service Boards, Alberta Environment.

STEERING COMMITTEE CONTACT:

Name: R. David Neilson
Phone: 422-4385

RESOURCE PERSON:

Name: John C. Hermans
Phone: 422-4385

* UPDATE: PFRA no longer provides Additional Funding, but Additional Funding is now available through Conservation and Development Branch.

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Roadside Backsloping and Seeding

REASON THE PROGRAM WAS SET UP:

Municipal roads with trees, shrubs and weeds growing in ditches made it nearly impossible to control roadside weeds. Roadside spraying costs to control brush and weeds were unreasonably high therefore a more permanent solution was required by creation of this program.

Backsloping reduces weed and snow removal costs by removing trees and steep ditch banks. Backsloped roads enable easier weed control by municipalities and allow the farmer to cultivate or crop most of the ditch.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"To encourage activities that benefit crop production, land use and the rural environment." Grants are paid through the Agricultural Service Board agreement with municipalities, 60 per cent of the cost of backsloping old roads and the total cost of seed and its planting on old or new backsloped roads.
(ASB Program Guidelines 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program related to soil conservation and water management.

PRIMARY LEGISLATION:

Agricultural Service Board Act.

PROGRAM ADMINISTRATION:

Agricultural and Community Services Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Crop Protection Branch (Alberta Agriculture).

STEERING COMMITTEE CONTACT:

Name: Adolph W. Goettel

Phone: 427-2530

RESOURCE PERSON:

Name: Ferrin Leavitt

Phone: 427-2171

# III. WATER / SOIL INTERRELATED PROGRAMS

## B. RESEARCH AND PLANNING

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Alberta Agricultural Research Institute (AARI)

REASON THE PROGRAM WAS SET UP:

As there was a need for the funding of long-term agricultural research and Farming for the Future could not meet that need, the Alberta Agricultural Research Institute was created in 1987.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To support long-term research programs and promote and foster research co-operation between industry, government and academic agencies. (Summary of purposes in Alberta Agricultural Research Institute Act 1987)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Investigations supported by AARI include soil conservation research. The purpose of this research is to study the causes of soil erosion and degradation, and to determine methods for conservation and management.

PRIMARY LEGISLATION:

Alberta Agricultural Research Institute Act.

PROGRAM ADMINISTRATION:

Board of Directors appointed by the Minister of Agriculture with representatives from agricultural producers or industries, and representatives from various governmental and academic agencies. Alberta Agriculture's Research Division serves as the operational arm of the Alberta Agricultural Research Institute.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

All sectors (Alberta Agriculture); Alberta Advanced Education; Alberta Research Council; Alberta Technology, Research and Telecommunications; Agriculture Canada; University of Alberta; University of Calgary; Western College of Veterinary Medicine.

STEERING COMMITTEE CONTACT:

Name: Gail Matheson

Phone: 427-2417

RESOURCE PERSON:

Name: Ralph Christian

Phone: 422-1072

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Farming for the Future (FFTF)

REASON THE PROGRAM WAS SET UP:

Agriculture Canada reduced support for agricultural research in Western Canada in the 1970s. In 1977, the Government of Alberta created Farming for the Future in order to fill the need for research specific to Western Canadian agriculture.

OBJECTIVE/PURPOSE OF THE PROGRAM:

The goal of Farming for the Future is to support agricultural research to improve net farm income and the long-term viability of agriculture in Alberta.
(Terms of Reference 1987)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Data on program projects related to soil and/or water.

Research Program Projects (Started 1978)
1984 to 1988 35 projects 16 per cent of total projects

On-Farm Demonstrations Projects (Started 1982)
1984 to 1988 137 projects 33 per cent of total projects

PRIMARY LEGISLATION:

Department of Agriculture Act, Alberta Heritage Savings Trust Fund Act.

PROGRAM ADMINISTRATION:

Farming for the Future Council: 15 member Council comprised of producers, and representatives of governmental and academic agencies. Minister of Agriculture is chairman. Alberta Agriculture's Research Division serves as the operational arm of the Farming for the Future Council.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

All sectors (Alberta Agriculture), Alberta Irrigation Council, Alberta Research Council, Agriculture Canada, University of Alberta.

STEERING COMMITTEE CONTACT:

Name: Gail Matheson

Phone: 427-2417

RESOURCE PERSON:

Name: Ralph Christian

Phone: 422-1072

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Machinery Research and Development

REASON THE PROGRAM WAS SET UP:

There was a perceived need in the late 1960s to evaluate the performance of field equipment and develop new machinery and techniques for better machine/soil interactions. This need was satisfied with a tri-province agreement establishing the Prairie Agricultural Machinery Institute (PAMI) in 1972. In 1988, the Alberta Farm Machinery Research Centre (AFMRC) was formed to manage the Alberta activities of PAMI.

OBJECTIVE/PURPOSE OF THE PROGRAM:

- "To identify effects of various types and makes of equipment on production and net farm return.
- The centre carries out evaluations of current production and prototype machines.
- The AFMRC development program assists manufacturers in developing and improving farm equipment.
- The centre conducts research on machinery related topics."

(Alberta Farm Machinery Research Centre Brochure 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Indirectly related to soil and water conservation management and technology.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Engineering Services Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

University of Alberta, Agriculture Canada, other research institutions in Alberta, and the Prairie Agricultural Machinery Institute.

STEERING COMMITTEE CONTACT:

Name: Robert S. Forrest

Phone: 427-2181

RESOURCE PERSON:

Name: Rick Atkins

Phone: 329-1212

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Resource Analysis and Planning Services

REASON THE PROGRAM WAS SET UP:

Recognizing the need to manage and coordinate the activities of Alberta Agriculture staff working on land use matters, the Minister created the position of Director of Land Use Activities in 1981. This allowed Alberta Agriculture to interact more with other agencies involved in land use. By 1988 two branches were amalgamated, creating the Resource Planning Branch under the direction of the Planning Secretariat.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"To collect and analyze data in support of the department's land and water resource use activities, and through participation in resource planning activities, to encourage the allocation, development, management and conservation of these resources for the long-term benefit of the agricultural sector."
(Agricultural Land Base Study: Government Programs Promoting Agricultural Expansion and Intensification 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil and water.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Resource Planning Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

All sectors (Alberta Agriculture); Alberta Environment; Alberta Forestry, Lands and Wildlife; Alberta Municipal Affairs; Alberta Transportation and Utilities; municipalities.

STEERING COMMITTEE CONTACT:

Name: Gail Matheson

Phone: 427-2417

RESOURCE PERSON:

Name: Jim Fenton

Phone: 427-5359

# III. WATER / SOIL INTERRELATED PROGRAMS

## C. TECHNOLOGY TRANSFER AND SERVICES

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Climate and Weather Service

REASON THE PROGRAM WAS SET UP:

The weather services of Environment Canada were established primarily for general public information and aviation needs. Agricultural producers felt that their day to day needs for weather reports related to crop and animal production were different and wanted a service to better fulfill their requirements.

There have been various weather-related activities in Alberta Agriculture over the years. In 1985, the Farm Weather Line was established. The program has evolved into a climate and weather information service which has received major emphasis during the recent drought conditions.

OBJECTIVE/PURPOSE OF THE PROGRAM:

To monitor and evaluate climate and weather data and facilitate the transfer of information that will assist producers and resource managers in their production decision making.
(Irrigation and Resource Management Division Manual 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program is related to soil and water.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Conservation and Development Branch.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

All sectors (Alberta Agriculture); Alberta Forestry, Lands and Wildlife; Environment Canada.

STEERING COMMITTEE CONTACT:

Name: R. David Neilson

Phone: 422-4385

RESOURCE PERSON:

Name: R. David Neilson

Phone: 422-4385

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Laboratory Services

REASON THE PROGRAM WAS SET UP:

To have laboratory services available to monitor soil, crops and water quality and/or to diagnose crop and animal production problems.

OBJECTIVE/PURPOSE OF THE PROGRAM:

- Soils and Animal Nutrition: To assist researchers, extension staff, and producers in the improvement of crop and animal production by chemical analysis of soils, animal feeds and plant samples. (Summary of Program Outlines 1988)

- Toxicology: "A major activity of the toxicology laboratory was the chemical analysis of water to evaluate water supplies for the agriculture community." (Animal Health Division Annual Report 1986)

- Soil and Water: "To assist with on-farm, irrigation district and Irrigation Council programs related to irrigation, drainage and conservation." (Irrigation and Resource Management Division Manual 1988)

- Earth Sciences: To "provide technical soil input and guidance to regulatory functions of Alberta Environment with the intent of improving, protecting, and promoting the wise use of Alberta's soil resource." (Program Outline 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Soils and Animal Nutrition: A major portion is related to soils.
Toxicology: A major portion is related to water.
Soil and Water: Entire program is related to soil or water.
Earth Sciences: Entire program is related to soil or water.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Soils and Animal Nutrition Laboratory, Alberta Agriculture (Redshaw).
Toxicology Laboratory, Alberta Agriculture (Beck).
Soil and Water Laboratory, Alberta Agriculture (Paterson).
Earth Sciences Laboratory, Alberta Environment (Regier).

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED: None.

STEERING COMMITTEE CONTACT:

Name: Adolph W. Goettel 427-2530

RESOURCE PEOPLE:

Name: Edward Redshaw 436-9150
Byron Beck 436-8410
Brent Paterson 381-5880
Henry Regier 381-5322

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Producer Associations
(Alberta Agriculture, Soil and Water Projects)

° ALBERTA CONSERVATION TILLAGE SOCIETY (ACTS) Region 1

PURPOSE:

To promote conservation farming.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: S. Garth Cochran
Calgary, Alberta

Phone: 274- 0563

° BATTLE RIVER APPLIED RESEARCH ASSOCIATION (BRARA) Region 3

PURPOSE:

Conduct applied research in cropping, agronomy, conservation and management systems in the Counties of Camrose, Flagstaff, Paintearth and Stettler.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Murray Klutz
Camrose, Alberta

Phone: 679-1210

° BATTLE RIVER FORAGE ASSOCIATION (BRFA) Region 3

PURPOSE:

To conduct applied research on beef and forage systems and extend this information to association members and the general farming public in the area covering County of Camrose and the adjoining parts of the Counties of Stettler, Flagstaff, Beaver, Wetaskiwin and Ponoka.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Shane Anderson
Camrose, Alberta

Phone: 679-1210

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Producer Associations
(Alberta Agriculture, Soil and Water Projects)(Cont.)

° CENTRAL PEACE CONSERVATION ASSOCIATION — Region 6

PURPOSE:

To evaluate and demonstrate the use of a conservation seed drill over a five-year period in the ID 20 and MD 133.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Ken Charlton
Spirit River, Alberta
Phone: 864-2234

° CHINOOK APPLIED RESEARCH ASSOCIATION (CARA) — Regions 1, 2, 3

PURPOSE:

To conduct applied research and demonstrations in the Special Areas and MD of Acadia Valley and serve as a link between research and local producers.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Dianne Westerlund
Box 690
Oyen, Alberta
Phone: 664-3777

° DRYLAND SALINITY CONTROL ASSOCIATION (DSCA) — Region 1

PURPOSE:

To create awareness of dryland soil salinity and encourage its control.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Bill Norris
Box 131
Warner, Alberta
Phone: 642-2436

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Producer Associations (Alberta Agriculture, Soil and Water Projects)(Cont.)

° EAST CENTRAL FORAGE ASSOCIATION — Region 4

PURPOSE:

To carry out demonstrations and applied research in forage production and management and grazing management in the southeast area of Region 4 and adjoining area of Special Area 4.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Wyett Swanson
Provost, Alberta

Phone: 753-6490

° FOOTHILLS FORAGE CO-OPERATIVE ASSOCIATION (FFCA) — Region 2

PURPOSE:

To demonstrate appropriate forage management techniques to farmers in the eastern slopes area - ranging from Rocky Mountain House to Pincher Creek.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Ian Harvie
Didsbury, Alberta

Phone: 335-4180

° GREY-WOODED FORAGE ASSOCIATION — Region 3

PURPOSE:

To conduct applied research on beef and forage systems and extend this information to association members and the general farming public in the area of Region 3 west of Highway #2.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Jim Bauer
Rocky Mountain House, Alberta

Phone: 845-8200

SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Producer Associations
(Alberta Agriculture, Soil and Water Projects)(Cont.)

° ID 22 APPLIED RESEARCH ASSOCIATION — Region 6

PURPOSE:

To research and demonstrate agricultural technology and farming practices for farmers in ID 22.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Murray Hartman
Manning, Alberta
Phone: 836-3351

° LAKELAND FORAGE ASSOCIATION — Region 4

PURPOSE:

To carry out demonstrations and applied research in forage production and management and grazing management in the northeast area of Region 4.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: David Burdek
Lac La Biche, Alberta
Phone: 623-5218

° NAMPA CONSERVATION TILLAGE ASSOCIATION — Region 6

PURPOSE:

To evaluate and demonstrate conservation tillage techniques in the Peace River/Fahler area.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Cliff Mikula
Nampa, Alberta
Phone: 322-2436

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Producer Associations (Alberta Agriculture, Soil and Water Projects)(Cont.)

° NORTHWEST PEAT SOILS ASSOCIATION — Region 5

PURPOSE:

To assess production agronomics on peat soils in Region 5.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Clarence Olthius
Barrhead, Alberta

Phone: 674-5639

° PEMBINA FORAGE ASSOCIATION — Region 5

PURPOSE:

To assess production agronomics of forage for hay, silage and pastures and to improve the management of beef/forage interrelationships in the northern and central areas of Region 5.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Luanne Berjian
Westlock, Alberta

Phone: 349-4465

° SMOKY APPLIED RESEARCH AND DEMONSTRATION ASSOCIATION (SARDA) — Region 6

PURPOSE:

To field test new agricultural technology and practices and to distribute the results to Smoky River area farmers.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Rene Labbe
Fahler, Alberta

Phone: 837-2211

SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Producer Associations
(Alberta Agriculture, Soil and Water Projects)(Cont.)

° VALLEYVIEW AND DISTRICTS FORAGE ASSOCIATION — Region 6

PURPOSE:

To conduct practical research related to forage seed production and forage production for hay and pasture in the areas of varieties, establishment, management and utilization.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Cheryl Wells
Valleyview, Alberta

Phone: 524-3301

° WEST CENTRAL FORAGE ASSOCIATION — Region 5

PURPOSE:

To assess production agronomics of forage for hay, silage and pastures and to improve the management of beef/forage interrelationships in the western area of Region 5.

STEERING COMMITTEE CONTACT:

Name: Ralph F. Berkan

Phone: 853-8109

RESOURCE PERSON:

Name: Maureen Slemko
Evansburg, Alberta

Phone: 727-3673

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Provincial Shelterbelt Program

REASON THE PROGRAM WAS SET UP:

To provide trees and shrubs to farmers to lessen wind erosion on farmland as was evident on the prairies in the 1920s and 1930s. Alberta Agriculture took over the propagation and distribution of trees for shelterbelt planting in 1952.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"Under the policy governing the shelterbelt program, trees and shrubs of seedling size shall be distributed from the Alberta Tree Nursery, for the following planting purposes:

i. Farm shelterbelt program.
ii. Publicly owned grounds.
iii. Arbor Day trees."

(Alberta Tree Nursery and Horticulture Centre Brochure 1988)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Entire program related to soil and water as sheltbelts aid in soil and moisture conservation, and in wind control.

PRIMARY LEGISLATION:

Department of Agriculture Act, Agricultural Service Board Act, Department of Agriculture Services Regulations AR 324/77 amended AR 257/87.

PROGRAM ADMINISTRATION:

Alberta Tree Nursery and Horticulture Centre.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture), Agricultural Service Boards, Alberta School Boards.

STEERING COMMITTEE CONTACT:

Name: Adolph W. Goettel

Phone: 427-2530

RESOURCE PERSON:

Name: E. Brendan Casement

Phone: 472-6043

## SOIL AND WATER PROGRAM INVENTORY

PROGRAM NAME: Range and Soil Improvement Program

REASON THE PROGRAM WAS SET UP:

The program was originally set up in the early 1970s as the Native Range Improvement Program designed to improve native range.

OBJECTIVE/PURPOSE OF THE PROGRAM:

"To increase farm and ranch income, by assisting and promoting improvement and development measures that will increase land productivity." (ADC Loan Programs Brochure 1988)

"The Range and Soil Improvement Program has been extended in its present form until June 30, 1990, with revisions to be considered in such areas as eligibility for brushing and breaking. These revisions may be implemented as early as January, 1990."
(Ministerial Press Release 1989)

COMPONENTS OF THE PROGRAM RELATED TO SOIL/WATER:

Indirectly related to soil improvement, water management and water supply.

PRIMARY LEGISLATION:

Department of Agriculture Act.

PROGRAM ADMINISTRATION:

Alberta Agricultural Development Corporation's Guaranteed Loan Programs.

OTHER BRANCHES/DIVISIONS/DEPARTMENTS/AGENCIES INVOLVED:

Field Services Sector (Alberta Agriculture).

STEERING COMMITTEE CONTACT:

Name: Gail Matheson

Phone: 427-2417

RESOURCE PERSON:

Name: Gail Finley

Phone: 421-8911

# IV. APPENDIX

# SOIL AND WATER PROGRAM INVENTORY

PROGRAMS REVIEWED IN INVENTORY:

Agricultural Land Flood Control Program

Agricultural Lime Freight Assistance (ALFA) Program

Alberta Agricultural Research Institute (AARI)

Alberta Farm Fertilizer Price Protection Plan

Alberta Farm Water Grant Program

Canada/Alberta Agreement on Soil, Water and Cropping
Research and Technology Transfer (CARTT)

Canada/Alberta Soil Conservation Initiative (CASCI)

Climate and Weather Service

Disaster Assistance

Dryland Salinity Investigation Service (DSIS)

Dugout Pumping Program

Dugout Site Testing Service

Farming for the Future (FFTF)

Farmland Development and Reclamation Program (FDRP)

Identification and Mapping: Erosion and Salinity Inventory

Laboratory Services

Machinery Research and Development

On-Farm Water Management Research and Technology Transfer

Other Soil and Water Awareness and Technology Tranfer
Programs Delivered through Agricultural Service Boards

Prairie Farm Rehabilitation Administration (PFRA)
Additional Funding for ASB Soil Conservation Programs

Producer Associations
(Alberta Agriculture, Soil and Water Projects)

Provincial Shelterbelt Program

Range and Soil Improvement Program

Resource Analysis and Planning Services

Roadside Backsloping and Seeding

Soil Conservation Act

Soil Conservation Area Program (SCAP)

Soil Conservation Research and Technology Transfer

Soil Fertility Research and Technology Transfer

Soil Improvement Research and Technology Transfer

Water Well Restoration or Replacement Program

## SOIL AND WATER PROGRAM INVENTORY

### ACTS AND REGULATIONS CITED IN INVENTORY:

Agricultural Service Board Act RSA 80 cA-11
Last consolidated August 9, 1983; Last amended 1988

Alberta Agricultural Research Institute Act 1987 cA-13.7
Proclaimed July 15, 1987; Last amended 1988

Alberta Heritage Savings Trust Fund Act RSA 80 cA-27
Last consolidated May 31, 1984; Last amended 1988

Department of Agriculture Act RSA 80 cD-12
Revised Statues of Alberta 1980; Last amended 1987

Department of Agriculture Services Regulations AR 324/77
Filed November 22, 1977; Last consolidated AR 257/87 (1987)

Public Safety Services Act RSA 80 cP-30.5
Last consolidated June 5, 1985; No amendments

Rural Utilities Act 1985 cR-21
Proclaimed July 21, 1986; Last amended 1988

Soil Conservation Act 1988 cS-19.1
Proclaimed September 26, 1988

Water Resources Act RSA 80 cW-5
Last consolidated September 12, 1986; No amendments

Wildlife Act - General Wildlife (Ministerial) Regulation AR 95/87
Filed March 31, 1987; Last amended AR 258/88 (1988)

## SOIL AND WATER PROGRAM INVENTORY

### SOURCES CITED IN INVENTORY:

ADC (Alberta Agricultural Development Corporation) Loan Programs. 1988. ADC Brochure.

Agricultural Land Base Study: Government Programs Promoting Agricultural Expansion and Intensification. 1988. Multi-agency Publication. Alberta Agriculture; Alberta Environment; Alberta Forestry, Lands and Wildlife; Alberta Municipal Affairs; Alberta Transportation.

Agricultural Lime Freight Assistance (ALFA) Program Guidelines. 1988. Alberta Agriculture Brochure. Soils Branch.

Agricultural Service Board Act. Revised Statues of Alberta 1980, Chapter A-11 as amended to August 9, 1983. Province of Alberta. Queen's Printer.

Agricultural Service Boards (ASB) Program Guidelines 1989. 1989. Alberta Agriculture Publication. Agricultural and Community Services Branch.

Alberta Agricultural Research Institute Act. (Assented to June 5, 1987). Chapter A-13.7. 1987. Province of Alberta. Queen's Printer.

Alberta Agriculture Letter To J. P. Connell, From H. B. McEwen. Agreement for PFRA Funding of Agricultural Service Boards Soil Conservation Programs. September 4, 1985.

Alberta Agriculture Policy for Distribution of Trees and Shrubs. 1988. Alberta Agriculture Brochure. Alberta Tree Nursery and Horticulture Centre.

Alberta Environment Memorandum To H. B. McEwen, From W. Solodzuk. Transfer Conditions of Dugout Testing Program. May 1, 1985.

Alberta Farm Fertilizer Price Protection Plan Program Conditions. 1989. Alberta Agriculture Brochure. Speciality Crops Stabilization.

Alberta Farm Machinery Research Centre. 1988. Alberta Agriculture Brochure. Engineering Services Branch.

Alberta Farm Water Grant Program. 1988. Alberta Transportation and Utilities Brochure. Support Programs Division.

Animal Health Division Annual Report 1986. Toxicology Section. 1987. Alberta Agriculture Publication. Toxicology Laboratory.

Assistance Available for Alberta Farmers. Adgex 871. 1988. Alberta Agriculture Publication. Farm Business Management Branch.

## SOIL AND WATER PROGRAM INVENTORY

SOURCES CITED IN INVENTORY (CONT.):

Canada/Alberta Accord on Soil and Water Conservation and Development. Canada/Alberta Agreement on Soil Conservation Initiative (CASCI). 1989. Government of Canada and the Government of the Province of Alberta.

Canada/Alberta Agreement on Soil, Water and Cropping Research and Technology Transfer (CARTT). 1987. Government of Canada and the Government of the Province of Alberta.

Dryland Salinity Investigation Service (DSIS) Proposal for Change. 1985. Executive Summary. Conservation and Development Branch.

Elzinga Announces New Soil Conservation Act. September 22, 1988. Government of Alberta News Release.

Evaluation Report Dugout Site Testing Program. 1988. Gail Stinson, Planning Secretariat.

Farming for the Future Terms of Reference. 1987. Alberta Agriculture Publication. Farming for the Future.

Guidelines to District Agriculturists Regarding Alberta Public Safety Services Disaster Assistance Programs. 1988. Alberta Agriculture Internal Information Document.

Isley Announces Farm Loan Guarantee Program Extensions. July 4, 1989. Government of Alberta News Release.

Overview of Purpose and Major Roles. 1988. Alberta Agriculture Manual. Irrigation and Resource Management Division.

A Proposal for Federal-Provincial Funding of Soil Conservation Through Agricultural Service Boards. 1985. Conservation and Development Branch.

Soil Conservation Act. (Assented to July 6, 1988). Chapter S-19.1. 1988. Province of Alberta. Queen's Printer.

Soil Protection Branch Program Outline. 1989. Alberta Environment Manual. Soil Protection Branch.

Soils Branch Program Outlines 1988. 1988. Alberta Agriculture Manual. Soils Branch.

Water Supplies Assistance Program. 1988. Alberta's Water Supply Action Committee Brochure.

Water Well Restoration or Replacement Program Guidelines. Revised 1988. Alberta Agriculture Brochure. Office of the Farmers' Advocate.